

**EXPRESSION OF XENOGENOUS (HUMAN) IMMUNOGLOBULINS**  
**IN CLONED, TRANSGENIC UNGULATES**

**Abstract of the Disclosure**

5           The present invention relates to the production of a transgenic bovine which  
comprises a genetic modification that results in inactivation and loss of expression of its  
endogenous antibodies, and the expression of xenogenous antibodies, preferably human  
antibodies. This is effected by inactivation of the IgM heavy chain expression and,  
optionally, by inactivation of the Ig light chain expression, and by the further introduction  
10 of an artificial chromosome which results in the expression of non-bovine antibodies,  
preferably human antibodies.